

General features for MPb Series (AGM) battery

- * Stable quality & high reliability.
- * Unique construction and sealing technique guarantees.
- * Design life 10years in float service;the battery comply to the most popular international standards,like IEC60896-21/22,etc
- * Maintenance-free operation.
- * UL-recognized component.
- * Heavy duty grids:
The heavy-duty lead calcium-alloy grids ,provide an extra margin of performance and service life in float & cyclic.
- * Case and cover are available in both standard and flame retardant ABS.
- * Low self discharge;low pressure venting system.



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MP12-120 (12V120Ah)

Specifications

Nominal Voltage		12V
Rated capacity (10 hour rate)		120 Ah
Dimensions (±2mm)	Total Height	233 mm (9.17 inches)
	Height	209 mm (8.23 inches)
	Length	407 mm (16.0 inches)
	Width	174mm (6.85 inches)
Weight Approx (±3%)		33.0 Kg (72.8 lbs)

Battery picture and construction

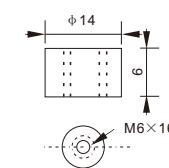


Battery Construction

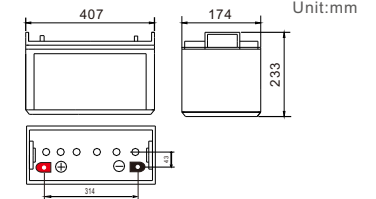
Component	Positive plate	Negative plate	Container	Cover
Raw material	Lead dioxide	Lead	ABS	ABS
Component	Electrolyte	Separator	Safety valve	Terminal
Raw material	Dilute sulfuric acid	Fiberglass	Rubber	Copper

Outer dimension and terminal

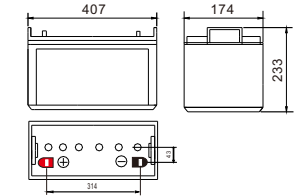
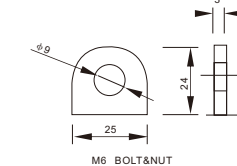
Terminal :T16



Outer dimensions(±2mm)



Terminal :T11



Characteristics

Capacity 25°C(77°F)	10 hour rate(12.0 A,10.8V) 5 hour rate(19.2A,10.5V) 1 hour rate(72 A,9.6V)	120 Ah 96Ah 72Ah
Internal Resistance	Full charged battery at 25°C(77°F)	Approx 4.0 mΩ
Capacity affected by Temperature (10hour rate)	40°C (104°F)	102%
	25°C (77°F)	100%
	0°C (32°F)	85%
Remaining capacity Self-Discharge At 25°C(77°F)	-15°C (5°F)	65%
	Capacity after 3 month storage	91%
	Capacity after 6 month storage	82%
	Capacity after 12 month storage	64%
Terminal type	T16 (Option T11)	
Max. Discharge current 25°C/(77°F)	930A (5Seconds)	
Nominal operating temperature	25°C ±5°C(77°F ±9°F)	
Operating Temperature Range	Discharge	-15°C ~50°C (5°F ~122°F)
	Charge	-10°C ~50°C (14°F ~122°F)
	Storage	-20°C ~50°C (-4°F ~122°F)
Charge methods (constant Voltage) At 25°C(77°F)	Cycle use	Initial Charging Current less than 30 A Voltage 14.5-14.9V Temperature compensation:-30mV/°C
	Standby use	Voltage 13.5-13.8V Temperature compensation:-18mV/°C

Constant current discharge (25°C , 77 °F)

Unit:A

Constant power discharge (25°C , 77 °F)

Unit:watts

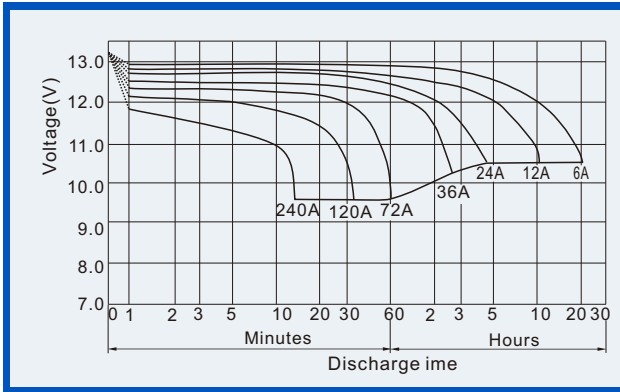
Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C(77 °F)

Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
9.60V	A	384	253	204	136.8	72.0	42.0	30.8	24.0	19.8	14.04	6.80
	W	3967	2704	2189	1471	778	461	343	270	225	161	146
10.20V	A	372	228	192	130.8	67.7	40.1	30.0	23.4	19.4	13.68	6.60
	W	3976	2551	2151	1468	765	462	347	272	227	160	145
10.50V	A	360	204	168	122.4	65.5	39.1	29.3	23.0	19.2	13.56	6.60
	W	3933	2325	1919	1409	759	454	341	270	225	159	143
10.80V	A	347	193	156	112.8	63.4	38.2	28.6	22.7	18.7	13.20	6.48
	W	3894	2221	1800	1307	738	447	337	268	221	156	143
11.10V	A	335	180	144	100.8	61.2	37.2	27.6	22.1	18.2	12.84	6.12
	W	3803	2090	1679	1179	720	440	328	263	218	154	137.6

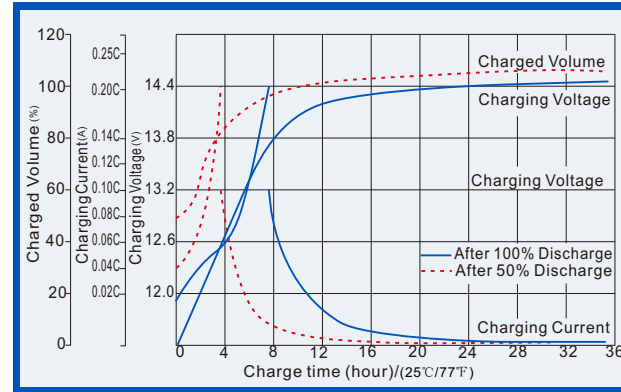
(Above characteristics data are average values obtained within three charge/discharge cycles,not the minimum values.)

VRLA Battery (AGM technology) Maintenance-free Sealed Lead Acid Rechargeable Battery

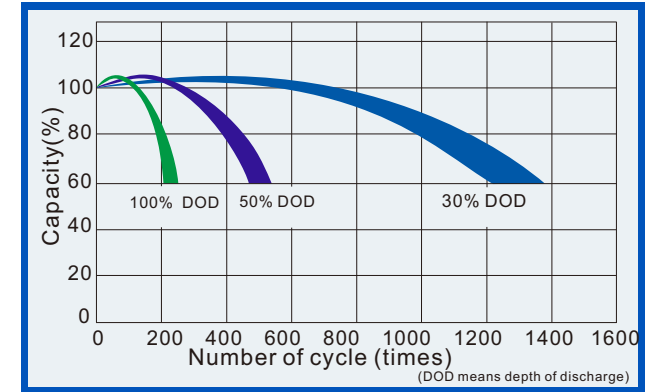
Discharge characteristics (25°C, 77°F)



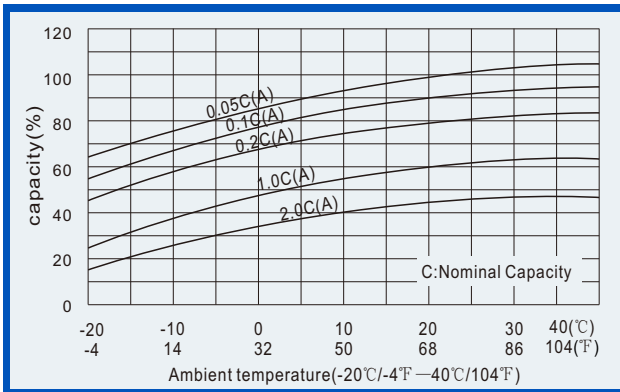
Charge characteristics (25°C, 77°F)



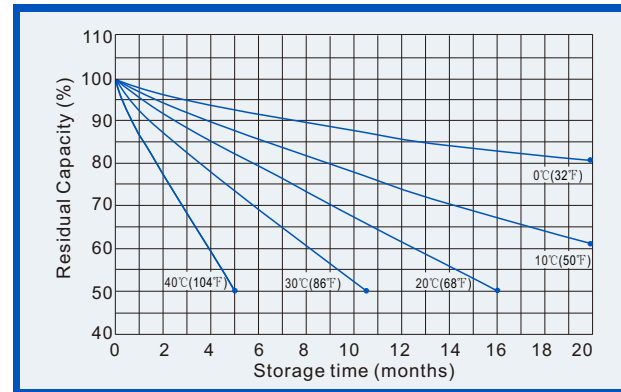
Life characteristics of Cyclic Use (25°C, 77°F)



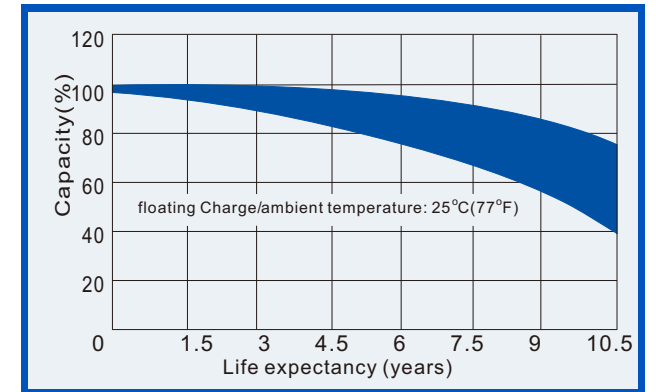
Effect of Temperature on capacity



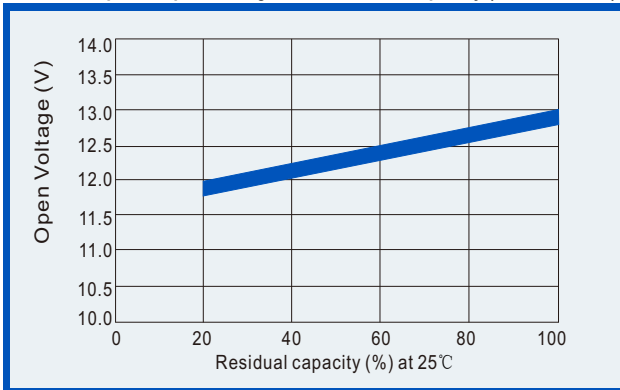
Self-discharge characteristics



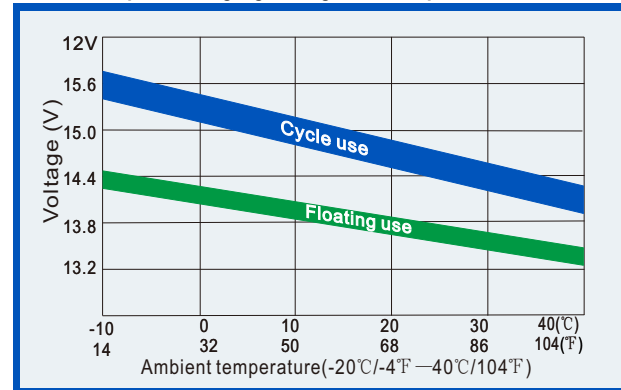
Life Characteristics of float service (25°C, 77°F)



Relationships for open voltage and remained capacity (for reference)



Relationship for charging voltage and temperature



Temperature effects on floating life

